

Message Text

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ORIGIN NRC-07

INFO OCT-01 EA-10 ISO-00 OES-05 ERDA-07 /030 R

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R 282033Z MAY 75
FM SECSTATE WASHDC
TO AMEMBASSY TOKYO

UNCLAS STATE 123929

E.O. 11652: N/A

TAGS: TECH, JA

SUBJECT: FUKUSHIMA-2 INFORMATION AND DUANE ARNOLD-LD1
REDUCED POWER OPERATION

FOR HENoch, SCIREP:ERDA

1. SUMMARY: NRC HAS REQUESTED JAPANESE EMBASSY, WASHINGTON, PROVIDE INFORMATION RELATED TO CHANNEL BOX WEAR IN FUKUSHIMA-2. REQUEST SCIREP TOKYO FOLLOW UP OF SAME. ADVISE JAPANESE OF DUANE ARNOLD-1 REDUCED POWER OPERATION. END SUMMARY.

2. NRC REQUESTED FIRST SECRETARY MURAKAMI, JAPANESE EMBASSY, WASHINGTON, PROVIDE THE FOLLOWING FUKUSHIMA-2 INFORMATION: (D(REQUEST MADE MAY 20, 1975)

A. FOR OUR PURPOSES, WE WOULD LIKE TO SEE TRANSIENT IN-CORE PROBE (TIP) TRACES FOR THE NOISY AS WELL AS ALL OTHER LOCATIONS. THE TIP TRACES SHOULD SPAN THE TIME INTERVAL FROM JUNE 1974 TO THE TIME OF PLANT SHUTDOWN WITH A TIME INTERVAL BETWEEN TRACES OF NO MORE THAN ONE MONTH. FOR EACH DATE OF THE TIP
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TRACES THE CONTROL ROD POSITIONS SHOULD BE GIVEN ALONG WITH THE CORE POWER AND FLOW. FOR EACH DATE

THE TIP SPEED AND THE CALIBRATION RUN OF EACH TIP

MACHINE IN THE COMMON POSITION SHOULD BE PROVIDED.
PROVIDE, IF AVAILABLE, THE CALIBRATION CURVE AS A
FUNCTION OF INPUT SIGNAL FREQUENCY FOR EACH TIP SYSTEM.

B. WE WOULD ALSO LIKE TO OBTAIN LOW POWER RANGE (LPRM)
TIME TRACES OF THE NOISY AS WELL AS OTHER LOCATIONS AND
THE CORRESPONDING POWER SPECTRAL DENSITY (PSD) PLOTS.
THESE PSD PLOTS SHOULD, IF AVAILABLE, BE PROVIDED FOR
THE TIME PERIOD FROM JUNE 1974 UNTIL THE PLANT WAS
SHUTDOWN. THESE PSD'S SHOULD BE FOR REPRESENTATIVE A,
B, C, AND D LPRM LEVELS.

C. PROVIDE DESCRIPTIONS, VIDEO TAPES AND PHOTOGRAPHS
OF CRACKS AND WEAR ON THE CHANNELS AND ON THE INSTRUMEN-
TATION THIMBLE. A FULL CHARACTERIZATION OF THE FAILURE
MORPHOLOGY IS NEEDED.

D. DESCRIBE HOW ONE RELATES OBSERVED WEAR TO ACTUAL
WEAR DEPTH AND HOW WEAR IS OBSERVED.

E. PROVIDE MASS FLOW RATE (LBS/HR-FOOT SQUARE), PERCENT
OF BYPASS FLOW AND FLOW VELOCITY (FT/SEC) IN THE REGION
OF INSTRUMENT TUBES AS A FUNCTION OF CONTROL ROD
POSITION. WHAT IS THE EXPECTED CHANGE IN FLOW VELOCITY
AND PERCENT OF BYPASS FLOW CAUSED BY TIME DEPENDENT
CHANNEL DEFLECTION?

F. WHAT ASPECTS OF THE CHANNEL WEAR PROBLEM DO YOU
CONSIDER ARE SPECIFIC TO YOUR REACTOR AND NOT NECESSARILY
GENERIC?

3. REQUEST SCIREP FOLLOW UP OF MURAKAMI REQUEST FOR
FUKUSHIMA-2 CHANNEL BOX WEAR INFORMATION.

4. ADVISE APPROPRIATE JAPANESE PARTIES THAT DUANE
ARNOLD-1 OPERATORS, IOWA ELECTRIC LIGHT AND POWER AND
POWER CO-OP, HAVE REDUCED REACTOR POWER OUTPUT 50 PERCENT
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BECAUSE OF INDICATIONS OF IN-CORE VIBRATION. DUANE
ARNOLD-1 IS A 530 MWE BWR LOCATED AT PALO, IOWA. INGERSOLL

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<< END OF DOCUMENT >>

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